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one of the velocities of the vehicle and the preceding vehicle which is used to set the target inter-vehicle distance and whose value is equal to or lower than a predetermined value.

6. (Amended) An adaptive cruise control system for an automotive vehicle as claimed in claim 5, wherein a time constant of the low-pass filter is set to become larger as one of the detected velocities of the vehicle and the preceding vehicle which is used to set the target inter-vehicle distance becomes lower.



- 7. (Amended) An adaptive cruise control system for an automotive vehicle as claimed in claim 5, wherein the delay providing section carries out a low-pass filtering for one of the detected velocities of the vehicle and the preceding vehicle which is used to set the target inter-vehicle distance and whose value is equal to or lower than a predetermined value.
- 8. (Amended) An adaptive cruise control system for an automotive vehicle as claimed in claim 1, wherein the velocity detecting section comprises: a vehicular velocity detecting section that detects the velocity of the vehicle; and a preceding vehicle velocity detecting section that detects the velocity of the preceding vehicle on the basis of a relative velocity of the vehicle to the preceding vehicle and the velocity of the vehicle.



claimed in claim 9, wherein the delay providing section provides a fifth control number of times previously detected velocity of the preceding vehicle V_{FS} for the detected velocity of the preceding vehicle V_{FF} used to set the target inter-vehicle distance when a presently detected velocity of the preceding vehicle V_{FI} is equal to or lower than the first predetermined velocity value, provides a fourth control number of times previously detected velocity of the preceding vehicle V_{FI} for the detected velocity of the preceding vehicle V_{FI} for the detected velocity of the preceding vehicle V_{FI} is higher than the first predetermined velocity value but is equal to or lower than the second predetermined velocity value, provides a third control number of times previously detected velocity of the preceding vehicle V_{FI} for the detected velocity value but is equal to or lower than the second predetermined velocity value, provides a third control number of times previously detected velocity of the preceding vehicle V_{FI} for the detected velocity of the preceding vehicle V_{FI} is higher than the second predetermined detected velocity of the preceding vehicle V_{FI} is higher than the second predetermined

velocity value but is equal to or lower than the third predetermined velocity value, provides a second control number of times previously detected velocity of the preceding vehicle V_{F2} for the detected velocity of the preceding vehicle V_{FF} used to set the target inter-vehicle distance when the presently detected velocity of the preceding vehicle V_F is higher than the third predetermined velocity value but is equal to or lower than the fourth predetermined velocity value, and provides a once control number of time previously detected preceding vehicle V_{FI} for the detected velocity of the preceding vehicle V_{FF} used to set the target intervehicle distance when the detected velocity of the preceding vehicle is higher than the fourth predetermined velocity value but is equal to or lower than the fifth predetermined velocity value.

12. (Amended) An adaptive cruise control system for an automotive vehicle as claimed in claim 6, wherein the time constant T of the low-pass filter is set to give a maximum value T₀ for the detected velocity of the vehicle used to set the target intervehicle distance when the detected velocity of the vehicle Vc is zero, is set to becomes smaller as the detected velocity of the vehicle Vc is increased, and is set to give zero when the detected velocity of the vehicle Vc becomes equal to the predetermined value.--

REMARKS

The Examiner is respectfully requested to enter the above amendments prior to examination of the instant application. The amendments are made to correct clerical and grammatical errors. The amendments are also made and to delete the multiple dependencies of Claims 4, 7, and 8 in order to avoid this application incurring a surcharge for the presence of one or more multiple dependent claims. The above amendments and are not deemed to change the scope of the invention. A marked-up version of the claims showing the changes made is attached.

Respectfully submitted,

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Date

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